DEPARTMENT OF THE AIR FORCE
59TH MEDICAL WING (AETC)
JOINT BASE SAN ANTONIO - LACKLAND TEXAS

30 MAY 2017

MEMORANDUM FOR ST
ATTN: RAQUEL L. LOPEZ

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled **59th Medical Wing Office of the Chief Scientist Research Highlights April 2017** presented at/published to **General Distribution; Available on 59 MDW/ST AFMS Kx Site, Email Distribution, etc** in accordance with MDWI 41-108, has been approved and assigned local file #**17246.**

2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.

3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are a 59 MDW staff member, we can forward your request for funds to the designated Wing POC at the Chief Scientist's Office, Ms. Alice Houy, office phone: 210-292-8029; email address: alice.houy.civ@mail.mil.

4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support

# PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS

**INSTRUCTIONS**

**USE ONLY THE MOST CURRENT 59 MDW FORM 3039 LOCATED ON AF E-PUBLISHING**

1. The author must complete page two of this form:
   a. In Section 2, add the funding source for your study [ e.g., 59 MDW CRD Graduate Health Sciences Education (GHSE) (SG5 O&M); SG5 R&D; Tri-Service Nursing Research Program (TSNRP); Defense Medical Research & Development Program (DMRDP); NIH; Congressionally Directed Medical Research Program (CDMRP) ; Grants; etc.]

   b. In Section 2, there may be funding available for journal costs, if your department is not paying for figures, tables or photographs for your publication. Please state "YES" or "NO" in Section 2 of the form, if you need publication funding support.

2. Print your name, rank/grade, sign and date the form in the author's signature block or use an electronic signature.

3. Attach a copy of the 59 MDW IRB or IACUC approval letter for the research related study. If this is a technical publication/presentation, state the type (e.g. case report, QA/QI study, program evaluation study, informational report/briefing, etc.) in the "Protocol Title" box.

4. Attach a copy of your abstract, paper, poster and other supporting documentation.

5. Save and forward, via email, the processing form and all supporting documentation to your unit commander, program director or immediate supervisor for review/approval.

6. On page 2, have either your unit commander, program director or immediate supervisor:
   a. Print their name, rank/grade, title; sign and date the form in the approving authority's signature block or use an electronic signature.

7. Submit your completed form and all supporting documentation to the CRD for processing (59crdpubspres@us.af.mil). **This should be accomplished no later than 30 days before final clearance is required to publish/present your materials.** If you have any questions or concerns, please contact the 59 CRD/Publications and Presentations Section at 292-7141 for assistance.

8. The 59 CRD/Publications and Presentations Section will route the request form to clinical investigations, 502 ISG/JAC (Ethics Review) and Public Affairs (59 MDW/PA) for review and then forward you a final letter of approval or disapproval.

9. Once your manuscript, poster or presentation has been approved for a one-time public release, you may proceed with your publication or presentation submission activities, as stated on this form. **Note:** For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.

10. If your manuscript is accepted for scientific publication, please contact the 59 CRD/Publications and Presentations Section at 292-7141. This information is reported to the 59 MDW/CC. All medical research or technical information publications/presentations must be reported to the Defense Technical Information Center (DITC). See 59 MDWI 41-108, *Presentation and Publication of Medical and Technical Papers,* for additional information.

11. The Joint Ethics Regulation (JER) DoD 5500.07-R, *Standards of Conduct*, provides standards of ethical conduct for all DoD personnel and their interactions with other non-DoD entities, organizations, societies, conferences, etc. Part of the Form 3039 review and approval process includes a legal ethics review to address any potential conflicts related to DoD personnel participating in non-DoD sponsored conferences, professional meetings, publication/presentation disclosures to domestic and foreign audiences, DoD personnel accepting non-DoD contributions, awards, honoraria, gifts, etc. The specific circumstances for your presentation will determine whether a legal review is necessary. **If you (as the author) or your supervisor check "NO" in block 17 of the Form 3039, your research or technical documents will not be forwarded to the 502 ISG/JAC legal office for an ethics review.** To assist you in making this decision about whether to request a legal review, the following examples are provided as a guideline:

    For presentations before professional societies and like organizations, the 59 MDW Public Affairs Office (PAO) will provide the needed review to ensure proper disclaimers are included and the subject matter of the presentation does not create any cause for DoD concern.

    If the sponsor of a conference or meeting is a DoD entity, an ethics review of your presentation is not required, since the DoD entity is responsible to obtain all approvals for the event.

    If the sponsor of a conference or meeting is a non-DoD commercial entity or an entity seeking to do business with the government, then your presentation should have an ethics review.

    If your travel is being paid for (in whole or in part) by a non-Federal entity (someone other than the government), a legal ethics review is needed. These requests for legal review should come through the 59 MDW Gifts and Grants Office to 502 ISG/JAC.

    If you are receiving an honorarium or payment for speaking, a legal ethics review is required.

    If you (as the author) or your supervisor check "YES" in block 17 of the Form 3039, your research or technical documents will be forwarded simultaneously to the 502 ISG/JAC legal office and PAO for review to help reduce turn-around time. If you have any questions regarding legal reviews, please contact the legal office at (210) 671-5795/3365, DSN 473.

**NOTE:** All abstracts, papers, posters, etc., should contain the following disclaimer statement:
***"The views expressed are those of the [author(s)] [presenter(s)] and do not reflect the official views or policy of the Department of Defense or its Components"***

**NOTE:** All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving humans:
***"The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DODI 3216.02_AFI 40-402."***

**NOTE:** All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving animals, as required by AFMAN 40-401_IP :
***"The experiments reported herein were conducted according to the principles set forth in the National Institute of Health Publication No. 80-23, Guide for the Care and Use of Laboratory Animals and the Animal Welfare Act of 1966, as amended."***

## PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS

| 1. TO: CLINICAL RESEARCH | 2. FROM: (Author's Name, Rank, Grade, Office Symbol) | 3. GME/GHSE STUDENT: | 4. PROTOCOL NUMBER: |
|---|---|---|---|
| | Lopez, Raquel L., CTR, 59 MDW/ST | ☐ YES ☒ NO | NA |

5. PROTOCOL TITLE: (**NOTE:** For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.)

NA

6. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED:

59TH MEDICAL WING OFFICE OF THE CHIEF SCIENTIST RESEARCH HIGHLIGHTS APRIL 2017

7. FUNDING RECEIVED FOR THIS STUDY? ☐ YES ☒ NO FUNDING SOURCE:

8. DO YOU NEED FUNDING SUPPORT FOR PUBLICATION PURPOSES: ☐ YES ☒ NO

9. IS THIS MATERIAL CLASSIFIED? ☐ YES ☒ NO

10. IS THIS MATERIAL SUBJECT TO ANY LEGAL RESTRICTIONS FOR PUBLICATION OR PRESENTATION THROUGH A COLLABORATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA), MATERIAL TRANSFER AGREEMENT (MTA), INTELLECTUAL PROPERTY RIGHTS AGREEMENT ETC.?

☐ YES ☒ NO **NOTE:** If the answer is YES then attach a copy of the Agreement to the Publications/Presentations Request Form.

11. MATERIAL IS FOR: ☒ DOMESTIC RELEASE ☐ FOREIGN RELEASE

CHECK APPROPRIATE BOX OR BOXES FOR APPROVAL WITH THIS REQUEST. ATTACH COPY OF MATERIAL TO BE PUBLISHED/PRESENTED.

☐ 11a. PUBLICATION/JOURNAL (List intended publication/journal.)

☐ 11b. PUBLISHED ABSTRACT (List intended journal.)

☐ 11c. POSTER (To be demonstrated at meeting: name of meeting, city, state, and date of meeting.)

☐ 11d. PLATFORM PRESENTATION (At civilian institutions: name of meeting, state, and date of meting.)

☒ 11e. OTHER (Describe: name of meeting, city, state, and date of meeting.)
General Distribution; Available on 59 MDW/ST AFMS Kx Site, Email Distribution, etc.

12. HAVE YOUR ATTACHED RESEARCH/TECHNICAL MATERIALS BEEN PREVIOUSLY APPROVED TO BE PUBLISHED/PRESENTED?

☐ YES ☒ NO ASSIGNED FILE # _____ DATE _____

13. EXPECTED DATE WHEN YOU WILL NEED THE CRD TO SUBMIT YOUR CLEARED PRESENTATION/PUBLICATION TO DTIC
**NOTE:** All publications/presentations are required to be placed in the Defense Technical Information Center (DTIC).

| DATE | |
|---|---|
| NA | |

| 14. 59 MDW PRIMARY POINT OF CONTACT (Last Name, First Name, M.I., email) | 15. DUTY PHONE/PAGER NUMBER |
|---|---|
| Lopez, Raquel L., raquel.l.lopez6.ctr@mail.mil | 210-292-3366 |

16. AUTHORSHIP AND CO-AUTHOR(S) List in the order they will appear in the manuscript.

| LAST NAME, FIRST NAME AND M.I. | GRADE/RANK | SQUADRON/GROUP/OFFICE SYMBOL | INSTITUTION (If not 59 MDW) |
|---|---|---|---|
| a. Primary/Corresponding Author<br>Raquel L. Lopez | CTR | 59 MDW/ST | |
| b. | | | |
| c. | | | |
| d. | | | |
| e. | | | |

17. IS A 502 ISG/JAC ETHICS REVIEW REQUIRED (JER DOD 5500.07-R)? ☐ YES ☒ NO

I CERTIFY ANY HUMAN OR ANIMAL RESEARCH RELATED STUDIES WERE APPROVED AND PERFORMED IN STRICT ACCORDANCE WITH 32 CFR 219, AFMAN 40-401_IP, AND 59 MDWI 41-108. I HAVE READ THE FINAL VERSION OF THE ATTACHED MATERIAL AND CERTIFY THAT IT IS AN ACCURATE MANUSCRIPT FOR PUBLICATION AND/OR PRESENTATION.

| 18. AUTHOR'S PRINTED NAME, RANK, GRADE | 19. AUTHOR'S SIGNATURE | 20. DATE |
|---|---|---|
| Raquel L. Lopez, CTR, 59 MDW/ST | LOPEZ.RAQUEL.LYNN.1390331670 | May 23, 2017 |
| **21. APPROVING AUTHORITY'S PRINTED NAME, RANK, TITLE** | **22. APPROVING AUTHORITY'S SIGNATURE** | **23. DATE** |
| Brenda J. Morgan, Col, Director Nursing Research Division | MORGAN.BRENDA.J.1135106085 | May 23, 2017 |

## PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS

**1st ENDORSEMENT (59 MDW/SGVU Use Only)**

| TO: Clinical Research Division<br>59 MDW/CRD<br>Contact 292-7141 for email instructions. | 24. DATE RECEIVED<br>May 23, 2017 | 25. ASSIGNED PROCESSING REQUEST FILE NUMBER<br>17246 |
|---|---|---|
| 26. DATE REVIEWED<br>May 25, 2017 | | 27. DATE FORWARDED TO 502 ISG/JAC |

28. AUTHOR CONTACTED FOR RECOMMENDED OR NECESSARY CHANGES: ☒ NO ☐ YES If yes, give date. _____ ☐ N/A

29. COMMENTS ☒ APPROVED ☐ DISAPPROVED

S&T News letter. approved

| 30. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER | 31. REVIEWER SIGNATURE | 32. DATE |
|---|---|---|
| Kevin Kupferer/GS13/Human Research Subject Protection Expert | KUPFERER.KEVIN.R.1086667270 Digitally signed by KUPFERER.KEVIN.R.1086667270 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USAF, cn=KUPFERER.KEVIN.R.1086667270 Date: 2017.05.25 11:01:02 -05'00' | May 25, 2017 |

**2nd ENDORSEMENT (502 ISG/JAC Use Only)**

| 33. DATE RECEIVED | 34. DATE FORWARDED TO 59 MDW/PA |
|---|---|

35. COMMENTS ☐ APPROVED (In compliance with security and policy review directives.) ☐ DISAPPROVED

| 36. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER | 37. REVIEWER SIGNATURE | 38. DATE |
|---|---|---|
| | | |

**3rd ENDORSEMENT (59 MDW/PA Use Only)**

| 39. DATE RECEIVED<br>May 25, 2017 | 40. DATE FORWARDED TO 59 MDW/SGVU<br>May 25, 2017 |
|---|---|

41. COMMENTS ☒ APPROVED (In compliance with security and policy review directives.) ☐ DISAPPROVED

| 42. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER | 43. REVIEWER SIGNATURE | 44. DATE |
|---|---|---|
| Kevin Iinuma, SSgt/E-5, 59 MDW Public Affairs | Digitally signed by IINUMA.KEVIN.MITSUGU.1296227613 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USAF, cn=IINUMA.KEVIN.MITSUGU.1296227613 Date: 2017.05.25 14:24:48 -05'00' | May 25, 2017 |

**4th ENDORSEMENT (59 MDW/SGVU Use Only)**

| 45. DATE RECEIVED | 46. SENIOR AUTHOR NOTIFIED BY PHONE OF APPROVAL OR DISAPPROVAL<br>☐ YES ☐ NO ☐ COULD NOT BE REACHED ☐ LEFT MESSAGE |
|---|---|

47. COMMENTS ☐ APPROVED ☐ DISAPPROVED

| 48. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER | 49. REVIEWER SIGNATURE | 50. DATE |
|---|---|---|
| | | |

59th Medical Wing

# Office of the Chief Scientist

# Research Highlights

April 2017

**What's new in...**

## En Route Care

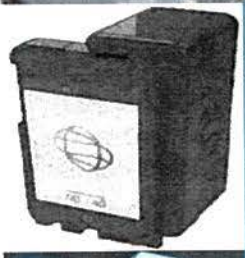

Maj Joseph Maddry (AFMSA at 59 MDW/ST) and the En Route Care Research Center team are evaluating the Data Archiving and Recording Consolidation (DARC) System to Support CCATT missions. The DARC system is portable, capable of collecting real-time data from monitors, and other electronic medical devices, consolidate the data to provide a continuous medical monitoring database during patient transport. USAF ECRC partnered with USAISR Critical Care Systems Task Area & Life Guard International/Flying ICU to assess DARC system capabilities.

## Operational Medicine


Capt Samuel Tahk and the Air Force Regenerative/Restorative Medicine Research Program/ RESTOR team are developing and validating a bioabsorbable/biointegratable negative pressure wound therapy sponge (NPWT). The sponge would not require changing but rather harness the propensity of NPWT to create tissue in growth. In addition to mitigating the need for sponge change, the construct would act as a scaffold for organization of healing in 3-dimensional defects, critical to treat the devastating wounds seen on today's battlefield.

## Force Health Protection


Mr. Manuel Caballero and the 59 MDW Center for Advanced Molecular Detection team is developing highly sensitive goggles for fluorescence-based detection of MERS-CoV and other pathogens of military importance. A new prototype is being designed in collaboration with the University of Akron to detect pathogens in the field or in-garrison environment. The goggles will have data recording, storage, processing capabilities, and data transmission capability to other devices.



Dr. Ghulam Chaudry, PhD., and the 59 MDW Center for Advanced Molecular Detection team, is developing and accessing military relevant pathogen assays on the Next Generation Diagnostic System. Assays to identify emerging pathogens of military significance are being tested on the NGDX Biomeme device. Biomeme is a light, portable, hand-held real-time PCR machine coupled to an iPhone for data recording, display, processing, and transmission. The instrument could provide a field-deployable capability for expedited identification of biothreat agents (e.g., anthrax bacteria) and emerging or recurrent infectious agents (i.e., Ebola, Zika, Influenza and Middle East Respiratory Syndrome Coronavirus (MERS-CoV). CAMD is the Air Force partner with the manufacturer, Biomeme, Inc., Philadelphia, PA. MERS-CoV and the Influenza virus A H7N9 are the initial test agents to assess and evaluate, in a controlled laboratory environment; CAMD results indicate detection as low as 50 to 500 copies of purified viral genomes. Next, the Center will design assays to simulate field conditions under which the instrument would be deployed.

ST collaborates with the 711HPW Applied Technology & Genomics Center; recent discussions examine enhanced opportunities for rapid pathogen identification and genomics research partnering.

## Expeditionary Medicine

Mr. J.R. Spencer (inventor) and the 59 MDW/ST team continue work on the Trauma Specific Vascular Injury Shunt (TS-VIS), now at the Proof of Concept and Function stage. To date, all commercially available shunts were designed to facilitate operations on age related cerebrovascular disease and not trauma. This new device addresses feasibility for a device specifically supporting limb salvage from traumatic vascular injuries. The effort is supported by 59 MDW/ST to move the vascular shunt through the FDA 510K process.

https://usaf.jbsa.59-mdw.mbx.59-mdw-st@mail.mil

**Chief Scientist Admin. Support: (210) 292-2097**